

FINDINGS FOR THE HAWAII COASTAL NONPOINT PROGRAM

FOREWORD

This document contains the findings for the coastal nonpoint pollution control program submitted by the State of Hawaii pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The findings are based on a review of the Hawaii's Coastal Nonpoint Pollution Control Program, Final Program Submittal, July 1996 , and supplemental material provided by Hawaii subsequent to the program submittal. The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) reviewed this information and evaluated the extent to which it conforms with the requirements of CZARA.

NOAA and EPA commend the State of Hawaii on the substantial time and effort put into developing this program and appreciate the commitment the State has shown to complete an ambitious task with limited resources. NOAA and EPA will continue to work with coastal states and territories to ensure that these findings represent an accurate assessment of current state and territorial abilities and efforts to address coastal nonpoint source pollution. NOAA and EPA recognize that further administrative changes that will affect these findings may be made to the coastal nonpoint program and, once such changes are finalized, will review these findings in light of the changes and make any necessary adjustments.

APPROVAL DECISION

NOAA and EPA approve the coastal nonpoint pollution control program submitted by the State of Hawaii pursuant to Section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990, subject to certain conditions.

This document provides the specific findings used by EPA and NOAA as the basis for the decision to approve the State's program. It also provides the rationale for the findings and includes the conditions that will need to be met for Hawaii to receive final approval of its program. The timeframes associated with conditions become effective upon the date of the approval letter for these findings.

INTRODUCTION

This document is organized by the major nonpoint source categories and subcategories identified in the Section 6217(g) guidance and the administrative elements identified in the program guidance. Where appropriate, NOAA and EPA have grouped categories and subcategories of management measures into a single finding. The structure of each finding follows a standard format: Finding and Rationale. The Findings and Rationale are the basis for the Conditions, which are listed in Section XII of this document (beginning on page 19).

Generally, the finding says that the State program: a) includes or does not include management measures in conformity with the 6217 (g) guidance, and b) includes or does not include enforceable policies and mechanisms to ensure implementation. Where the State has proposed a management measure in its program submittal, but has not adopted the management measure as state policy, the finding is that the State's program is not in conformity, pending adoption of the measure. In some cases, the finding reflects that the State has identified a back-up enforceable policy, but has not yet demonstrated the ability of the authority to ensure implementation. The Rationale includes information upon which the Findings and Conditions are based, and recognizes where the State has programs and policies that address the management measure. The Conditions describe the actions necessary for Hawaii to receive final approval of its program. For further understanding of terms used in this document, the reader is referred to the following:

Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters (EPA, January 1993);
Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance (NOAA and EPA, January 1993);
Flexibility for State Coastal Nonpoint Programs (NOAA and EPA, March 1995).

The references in this document refer to the Hawaii's Coastal Nonpoint Pollution Control Program, Final Program Submitted, July 1996 ("program submittal"). NOAA and EPA have written this document as succinctly as possible. We have relied upon, but do not repeat here, the extensive information that the State included in the program submittal. Further information and analysis is contained in the administrative record for this approval decision and may be reviewed by interested parties at the following locations:

EPA/Office of Wetlands, Oceans and Watersheds
Assessment & Watershed Protection Division
Nonpoint Source Control Branch
401 M St., SW (4503-F)
Washington, DC 20460
Contact: Robert Goo (202/260-7025)

Hawaii Coastal Nonpoint Program Findings

NOAA/Office of Ocean and Coastal Resource Management
Coastal Programs Division
SSMC-4, N/ORM3
1305 East-West Highway
Silver Spring, MD 20910
Contact: Masi Okasaki (301/713-3121, ext. 185)

U.S. EPA Region IX
75 Hawthorne Street (WTR-10)
San Francisco, CA 94105
Contact: Audrey Shileikis (415/744-1968)

Hawaii Coastal Nonpoint Program Findings

EXECUTIVE SUMMARY

The Hawaii Coastal Nonpoint Pollution Control Program (CNPCP) submittal summarizes existing programs to reduce nonpoint sources of pollution and improve water quality, and identifies recommendations to improve the program. The State will be developing an Implementation Plan that will describe how these recommendations will be implemented and what other steps the State will take to meet the conditions identified in the proposed Findings.

The proposed Findings conclude that the State program provides a good foundation for reducing nonpoint source pollution and improving coastal water quality, and that additional work remains to be done to fully address the requirements of CZARA. In summary:

- the State needs to fully describe how the management measures will be incorporated into the State's CNPCP and how they will be implemented;
- the State will need to describe how existing "back-up" authorities will be used to ensure implementation of the management measures, if voluntary efforts fail;
- the State will need to adequately address the administrative elements related to technical assistance, critical coastal areas, additional management measures and monitoring.

Accordingly, NOAA and EPA's approval of Hawaii's CNPCP includes conditions for addressing the above areas. These conditions must be met within one to five years, depending on the condition (see Section XII below), as specified in the March 16, 1995 Flexibility Guidance, for the State to receive full program approval. The State, NOAA and EPA will work together to annually review progress towards meeting these conditions, with the goal of developing a fully approvable Hawaii CNPCP that results in environmental and public health protection and meets the requirements of CZARA.

Hawaii Coastal Nonpoint Program Findings

I. BOUNDARY

FINDING: Hawaii's 6217 management area, defined as all lands of the State and the area extending seaward to the limit of the State's power and management authority, including the U.S. territorial sea, is sufficient to control the land and water uses that have or are reasonably expected to have a significant impact on the coastal waters of Hawaii.

II. AGRICULTURE

FINDING: Hawaii's program includes alternative management measures for confined animal facilities, pesticide and irrigation that are as effective as the 6217(g) management measures. NOAA and EPA cannot determine if the State's proposed alternative management measures for erosion and sediment control, nutrient management, and grazing are as effective as the 6217(g) management measures until additional information is developed by the State. The State has identified a back-up enforceable authority, but has not yet demonstrated the ability of the authority to ensure implementation of the management measures throughout the 6217 management area.

RATIONALE: Hawaii's alternative management measures for facility wastewater and runoff from confined animal facilities, pesticides, and irrigation are as effective as the management measures in the 6217(g) guidance. Hawaii has also identified practices to implement these measures. While the State has identified the Natural Resources Conservation Service (NRCS) practices for waste utilization to support the confined animal facility management measure, corresponding guidance is not in the Department of Health's Draft Guidelines for Livestock Waste Management (Draft Guidelines) which will be used to provide information on management measure implementation to landowners. The Draft Guidelines only apply to new or expanding operations and do not address nutrient management or previously discussed waste utilization. NOAA and EPA strongly encourage the State to revise the Draft Guidelines to incorporate appropriate waste utilization practices.

For the pesticide management measure, Hawaii Administrative Rules (HAR) 11-21 requires anti-backflow devices and HAR 4-66 regulates restricted use pesticides and requires applicators to apply pesticides consistent with the label. Hawaii's program submittal on pages III-32 - III-33, lists comprehensive State practices based on the NRCS field technical guides for integrated pest management. The Cooperative Extension Service, NRCS, Soil and Water Conservation Districts (SWCDs) and the US Department of Agriculture (USDA) Farm Services Agency are involved in providing information and technical assistance on these practices.

The State has also proposed alternative management measures for erosion and sediment control, nutrient management, and grazing to make them more appropriate for Hawaii.

Hawaii Coastal Nonpoint Program Findings

- o The proposed alternative management measures for erosion and sediment control, and grazing do not incorporate the erosion, and range and pasture components, respectively, of USDA's Conservation Management System, as specified in the 6217(g) guidance. Hawaii proposes to apply "any combination of conservation practices and management that achieves an acceptable level of treatment." Hawaii is currently in the process of defining an acceptable level of treatment. When EPA and NOAA determine that Hawaii's process to define acceptable level of treatment is as effective as the 6217(g) measures, both measures will be acceptable as alternative management measures.
- o Hawaii's proposed alternative nutrient management measure differs from the 6217(g) measure in three significant ways: 1) the proposed measure will not determine the rate of availability of the nutrients; 2) the realistic yield expectations will be based on "achievable yields" (to be determined by Cooperative Extension Service, nutrient management planners, farmers, or others), rather than on yield histories (State Land Grant University recommendations, or NRCS soils information); and, 3) the proposed measure will not include soil tests for nitrogen. When EPA and NOAA are able to determine that the information to support Hawaii's alternative management measure is as effective as the 6217(g) guidance, this measure will be acceptable as an alternative management measure.

The State of Hawaii is proposing a voluntary Agricultural Pollution Prevention Plan (PPP) program for the implementation of all the agricultural management measures. A PPP program would be submitted to the local SWCD for review and approval, and revised every 3-5 years. Proposed incentives to participate in the PPP program include property tax breaks, and exemption from enforcement actions. The State also proposes development of a bad actor law to strengthen the State's enforcement mechanism.

The State proposes to use Hawaii Revised Statutes (HRS) Chapter 342D, Water Pollution Control, and HAR Chapter 11-54, Water Quality Standards, as back-up enforceable policies and mechanisms for all agricultural management measures.

III. FORESTRY

FINDING: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for forestry. The State has identified a back-up enforceable authority but has not yet demonstrated the ability of the authority to ensure implementation of the management measures throughout the 6217 management area.

RATIONALE: To date, forestry in Hawaii is a very limited activity and is confined almost exclusively to the Island of Hawaii. However, Hawaii anticipates significant growth in commercial silviculture in the near future as an alternative to the declining sugarcane industry. Based on the expectation that forestry activities may increase into a significant activity in the 6217 management area, Hawaii has presented a draft program outlined on page III-96 through III-100

Hawaii Coastal Nonpoint Program Findings

of its submittal, which would encourage participation in voluntary, incentive-driven programs. Hawaii proposes that these voluntary incentive programs be administered by the Department of Land and Natural Resources under the Tree Farm Program. The State has proposed alternative management measures for timber harvesting and fire management to make them more appropriate for Hawaii. Although these proposed alternative management measures are as effective as the corresponding 6217(g) guidance measures, they need to be adopted as State policy.

Hawaii also proposes to incorporate Best Management Practice (BMP) implementation into Conservation District Use Application (CDUA) permits and timber land licenses. This approach would provide enforceable policies and mechanisms in areas where these programs apply. However, according to Hawaii's program submittal on page III-64, most potential forestry operations are likely to be started on agricultural lands, where a CDUA permit would not be required. The State intends to encourage implementation of the management measures through voluntary management plans developed and implemented under the Forest Stewardship and Tree Farm programs. The State also intends that forestry operations on agricultural land will have the same incentives to participate in the voluntary PPP. The State will use HRS Chapter 342D, Water Pollution Control, and HAR Chapter 11-54, Water Quality Standards, as back-up enforceable policies and mechanisms for all forestry management measures.

IV. URBAN

A. New Development

FINDING: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for new development. The State has identified a back-up enforceable authority for the new development management measure, but has not yet demonstrated the ability of the authority to ensure implementation throughout the 6217 management area.

RATIONALE: In Hawaii, the county planning departments are responsible for regulating the impacts of development projects. County storm drainage standards are implemented through the county departments of public works. According to the State submittal, these standards were only designed for flood control purposes and not for controlling nonpoint source pollution. However, the City and County of Honolulu has the goal to allow no increases in runoff from new developments and are currently in the process of drafting stormwater requirements for new development. Maui County is also engaged in the final stages of developing new rules to address this issue. Both of these proposed rulemakings, when final, are anticipated to be consistent with the goals of the management measures. The County of Hawaii has a policy not to allow runoff to leave the boundaries of a new subdivision and requires the use of injection wells to maintain pre-development hydrology. The County of Kauai has management measures but they are not consistent with the 6217(g) guidance.

Hawaii Coastal Nonpoint Program Findings

The State submittal indicated that the four counties consider the TSS reduction goals of the management measures achievable, but are uncertain if the peak flow rate requirements are achievable. The counties will attempt to achieve the TSS loading reductions by limiting average post-development runoff flow to pre-development levels. However, the State has not provided information regarding specific management measures or described the State's role in working with the counties to implement the management measures throughout the 6217 management area. The State will use HRS Chapter 342D, Water Pollution Control and HAR Chapter 11-54, Water Quality Standards as back-up enforceable policies and mechanisms for the new development management measure.

B. Watershed Protection and Existing Development

FINDING: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for watershed protection and existing development. Hawaii's program includes enforceable policies and mechanisms to ensure implementation of the watershed protection management measure. The State has identified a back-up enforceable authority for the existing development management measure, but has not yet demonstrated the ability of the authority to ensure implementation throughout the 6217 management area.

RATIONALE: The State submittal references regulatory and non-regulatory mechanisms that partially address the watershed protection management measure. However, these mechanisms do not result in a statewide watershed protection program or policies that preserve areas critical to water quality within all watersheds of Hawaii. The State needs to develop a statewide watershed process to address the management measure element.

The State Land Use Law, Chapter 205 Hawaii Revised Statutes (HRS) divides all lands into four major district classifications: urban, rural, agricultural and conservation. Conservation District lands encompass 47.6% of the State. Within the Conservation District, subzones can be established to protect lands susceptible to erosion (Limited Subzones) and to protect watersheds (Protection Subzones). The Department of Land and Natural Resources regulates the uses in conservation districts through the Conservation District Use Application (CDUA). The four counties have authority to issue development-related permits in the urban district and the agricultural district for projects under 15 acres. For projects larger than 15 acres, the Land Use Commission must review and approve the permit.

Under Chapter 1-2, Hawaii Administrative Rules (HAR), Special Management Areas (SMA) are designated along the shoreline. Although the Hawaii Coastal Zone Management program reviews development permits in SMAs for consistency with the CZM objectives and policies, each county is responsible for administering the SMA permits, and shoreline setback provisions. Under Chapter 195, HRS, Natural Reserves System, the State has the authority to designate and bring under its control and management those areas necessary to preserve the unique natural resources of Hawaii. The State's submittal also indicates that the Counties of Maui and Kauai have

Hawaii Coastal Nonpoint Program Findings

authorities limiting the conversion of areas susceptible to erosion through their comprehensive zoning ordinances. Although the county authorities provide a framework that has resulted in the implementation of various aspects of the management measures in specific jurisdictions, it is unclear what role the State has in working with the counties to implement the management measures throughout the 6217 management area.

For the existing development management measure, the State implements the Stream Channel Alteration Permit Program, which can be used to limit destruction of stream channels. The State has also identified HAR 11-54, Water Quality Standards, as a back-up authority. However, the State currently does not have a program nor a schedule for implementing controls to address watershed pollution reduction opportunities from existing development in urbanized areas and a program to establish buffers along surface waterbodies (other than the shorelines covered under the SMA) and their tributaries. Existing assessments such as the CWA Section 303(d) list, which identifies water quality limited segments, and the Hawaii Stream Assessment and Stream Protection and Management Plan, if updated periodically, can be useful tools in assisting the State to target areas where water quality may be impacted by existing development. Hawaii, however, would still need to incorporate within its program an assessment, prioritization and implementation plan to specifically address individual sites or pollutant sources in developed areas where remedial action is needed. The establishment of waterbody buffers also could be incorporated as one element of such a plan.

EPA and NOAA support the State's effort to implement the recommendations in the program submittal for both the Watershed and Existing Development management measures.

C. Site Development

FINDING: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for site development. The State has identified a back-up enforceable authority for the site development management measure, but has not yet demonstrated the ability of the authority to ensure implementation of the management measure throughout the 6217 management area.

RATIONALE: The State's program submittal references county authorities addressing elements of this management measure. Pursuant to State guidance, all counties in Hawaii have enacted grading ordinances to control soil erosion from land disturbing activities that address elements of this management measure to varying degrees. Although these authorities provide a framework that address the implementation of various aspects of the management measure in the counties, it is unclear what role the State has in working with the counties to implement the management measures throughout the 6217 management area.

EPA and NOAA recommend that the State of Hawaii pursue the recommendations outlined in the program submittal and encourage the development and enhancement of the county programs to

Hawaii Coastal Nonpoint Program Findings

address all facets of this management measure. Other potential program enhancements include expanding the scope of existing programs by lowering applicable size thresholds for site development practices; applying the concepts and protective mechanisms currently included in the county subdivision regulations to non-subdivision related developments, e.g., commercial or large noncommercial/nonprofit developments; and promoting county adoption of standards or guidelines regarding the minimization of impervious surfaces. To strengthen statewide implementation, NOAA and EPA encourage the State to assess the use of the nonpoint source pollution and control program established by HRS Chapter 342E-3.

The State will use HRS Chapter 342D, Water Pollution Control and HAR Chapter 11-54, Water Quality Standards as back-up enforceable policies and mechanisms for the site development management measure.

D. Construction Site Erosion and Sediment Control

FINDINGS: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for construction site erosion and sediment control. The State has identified a back-up enforceable authority for construction site erosion and sediment control but has not yet demonstrated the ability of the authority to ensure implementation of the management measure throughout the 6217 management area.

RATIONALE: Pursuant to HRS 180C, all counties in the State of Hawaii have enacted ordinances for the purpose of controlling soil erosion and sediment. These ordinances contain, to varying degrees, standards, criteria, techniques, and methods for the control of erosion and sediment resulting from land disturbance activities and enforceable policies and mechanisms for implementation. Since all counties have enacted this ordinance, HRS 180C has been repealed.

The State's submittal references county authorities that address elements of this management measure. Grading projects must receive a permit but erosion and sediment control plans are not required for all sites, and applicability differs widely where required. Drainage and erosion control plans are required by the City and County of Honolulu, and the County of Maui, for sites greater than one acre in area, and cut and fill activities greater than 15 feet in height. In the County of Kauai, drainage and erosion control plans are required for sites greater than 1 acre or on slopes greater than 20%. In the County of Hawaii, all grading of areas of more than fifteen thousand square feet requires an approved contour map prepared by a certified professional that describes erosion and sediment controls. However, as previously mentioned, it is unclear what role the State has in working with the counties to implement the management measure throughout the 6217 management area.

The State's submission (pages III-122 - III-123) includes regulatory and procedural changes to address the erosion and sediment control management measure. These include changes to the county grading ordinances, development of a BMP manual of construction practices to help

Hawaii Coastal Nonpoint Program Findings

standardize acceptable practices in all counties and for State projects, and integrating inspection for erosion and sediment control plan with other construction activities. NOAA and EPA encourage the State to implement these changes and also to assess the use of the nonpoint source pollution and control program established by HRS 342E-3.

The State will use HRS Chapter 342D, Water Pollution Control, and HAR Chapter 11-54, Water Quality Standards, as back-up enforceable policies and mechanisms for the erosion and sediment control management measure.

E. Construction Site Chemical Control

FINDING: Hawaii's program does not include management measures in conformity with the 6217(g) guidance for construction site chemical control. The State has identified a back-up enforceable authority for construction site chemical control, but has not yet demonstrated the ability of the authority to ensure implementation of the management measures throughout the 6217 management area.

RATIONALE: Hawaii has rules regulating the use of pesticides and enforceable policies controlling the use of restricted pesticides. In addition, the State rules require that no person shall use any pesticide or pesticide container in any manner which would have unreasonable adverse effects on the environment.

The State, however, lacks management measures to address general housekeeping of construction materials, toxic substances, and nutrients on construction sites. The efforts of the General Contractor's Association, the City and County of Honolulu, and the State of Hawaii are positive steps to begin addressing this potential source of water pollution. The State is also encouraged to pursue additional recommended implementing actions outlined in the program submittal (pages III-127 - III-128) including the revision of rules to include prevention activities, the training and perhaps the certification of onsite personnel regarding construction chemical usage, and the development of a best practice manual for construction activities which would include chemical usage and runoff control practices. NOAA and EPA encourage the State to implement these changes and also to assess the use of the nonpoint source pollution and control program established by HRS 342E-3.

The State will use HRS Chapter 342D, Water Pollution Control, and HAR Chapter 11-54, Water Quality Standards, as back-up enforceable policies and mechanisms for the construction site chemical control management measure.

Hawaii Coastal Nonpoint Program Findings

F. New and Operating Onsite Disposal Systems (OSDS)

FINDING: Hawaii's program includes management measures in conformity with the 6217(g) guidance and enforceable policies and mechanisms to ensure implementation throughout the 6217 management area, except for: 1) requirements for denitrifying OSDS, where applicable; and, 2) a program that ensures inspection of OSDS at a frequency adequate to ascertain system failure.

RATIONALE: Though the Hawaii Department of Health OSDS program is generally consistent with the OSDS management measures, the State's program does not contain requirements for both the periodic inspection of operating OSDS and installation or upgrade of denitrifying OSDS adjacent to nitrogen-limited surface waters.

EPA and NOAA encourage the State to follow the implementing actions in the program submittal (pages III-137 - III-139) regarding program improvements. Priorities include the need for policies addressing adequate system capacity, and an outreach and education program to increase awareness of proper use and operation of OSDS. The State should also work with the counties to provide incentives to encourage homeowners to convert cesspools and seepage pits to a more environmentally sound practices where these disposal methods either potentially or currently impair or threaten water quality.

G. Pollution Prevention

FINDING: Hawaii's program contains management measures in conformity with the 6217(g) guidance.

RATIONALE: The State of Hawaii has a program that addresses many facets of Nonpoint Source Pollution Prevention. These include litter control, pet waste, general public awareness, recycling program, and illicit discharges of oil and hazardous waste. Other aspects of nonpoint source pollution prevention in which the State may want to strengthen their program include expanded nonpoint source education of commercial entities, and lawn and turf management.

H. Golf Courses

FINDING: EPA and NOAA fully support the State in adoption and implementation of the Golf Course management measure. The measures selected by the State are an excellent foundation with which to manage and operate golf courses. The State may want to consider the development of siting and design guidelines or criteria for new golf courses to avoid, or at least, minimize potential environmental impacts of these facilities.

Hawaii Coastal Nonpoint Program Findings

I. Roads, Highways, and Bridges

FINDING: Hawaii's program includes management measures in conformity with the 6217(g) guidance for State and Federal roads, highways, and bridges under the Department of Transportation (DOT) jurisdiction, except for the construction site chemical control, runoff systems, and operations and maintenance management measures. Hawaii's program does not include management measures in conformity with the 6217(g) guidance to address local roads, highways, and bridges. The State has included enforceable policies and mechanisms to ensure implementation of the management measures for roads, highways, and bridges under State DOT jurisdiction, but has not included enforceable policies and mechanisms for local roads, highways, and bridges to ensure implementation throughout the 6217 management area.

RATIONALE: Hawaii's management measures for planning, siting, and developing roads, highways, and bridges are in conformity with the 6217(g) guidance for projects under the jurisdiction of Hawaii's DOT. The DOT has adopted standard contract specifications which require environmental assessments for road, highway, and bridge projects and which assure implementation of the construction site erosion and sediment management measures for DOT managed projects. Hawaii does not have similar programs for local roads, highways, and bridges not under DOT jurisdiction. For construction site chemical control measures, see Section IV.E. Construction Site Chemical Control.

In Hawaii, the development, and operation and maintenance of county roads, highways, and bridges are the responsibility of the counties. The counties have construction grading ordinances and inspection procedures but applicability of the counties erosion and sediment control plans differs widely where required. Also, Hawaii does not have a statewide program that requires DOT to identify and prioritize pollution controls on existing roads, highways, and bridges to meet the runoff systems management measure. Hawaii's program describes activities for operation and maintenance, but lacks the measure for roads, highways, and bridges and enforceable mechanism to ensure implementation for local roads, highways, and bridges not under DOT jurisdiction.

DOT uses contract clauses as enforceable policies to ensure implementation of the management measures for State and Federal roads, highways, and bridges under DOT jurisdiction. The State management measures and enforceable policies and mechanisms to ensure consistent implementation of the management measures for roads, highways and bridges not under DOT jurisdiction are not identified.

V. MARINAS AND RECREATIONAL BOATING

A. Marina Siting and Design

FINDING: Hawaii's program includes management measures in conformity with the 6217(g) guidance for marina flushing, water quality assessment, and habitat assessment, but does not include management measures for shoreline stabilization, storm water runoff, fueling station design, and sewage facility management. The program includes enforceable policies and mechanisms to ensure implementation of the management measures.

RATIONALE: The State does not currently have formally adopted uniform guidelines and criteria in place for all the marina siting measures which are in conformity with the 6217(g) guidance. The alternative management measure for habitat assessment and the proposed management measure for shoreline stabilization are as effective as the 6217(g) guidance.

The State has enforceable policies and mechanisms, including DLNR's Conservation District Use Application (CDUA) and the Department of Health's water quality authority, for siting and design of new and expanding marinas, which include management measures for marina flushing, water quality assessment, and habitat assessment. The State could use these authorities to implement the proposed management measures for shoreline stabilization, storm water runoff, fueling station design, and sewage facilities management by formally adopting guidelines and criteria for these measures, thereby ensuring their implementation through these authorities.

The DLNR's CDUA permit process is triggered by any proposed marina construction project because submerged lands are included within the Conservation District, as identified under the State Land Use Law, Chapter 205. The CDUA permit process provides the mechanism to address the management measures by including the measures as conditions in permits for new and expanding marinas. The State informally applies review criteria and guidelines found in documents from the International Marina Institute, the Corps of Engineers and the State's own "Draft Planning and Evaluation Guidelines for Private Sector Marina Development" (1993) when reviewing private and public marinas. EPA and NOAA encourage the State to consider formally adopting similar measures to meet coastal nonpoint program requirements.

B. Boating Operation and Maintenance

FINDING: Hawaii's program includes management measures in conformity with the 6217(g) guidance, except for maintenance of sewage facilities. The program includes enforceable policies and mechanisms to ensure implementation of the management measures throughout the 6217 management area.

RATIONALE: Hawaii's program includes management measures for marina operation and maintenance, except for sewage facility maintenance. The State's publication entitled "Managing Boat Wastes: A Guide for Hawaii Boaters" addresses boat cleaning and boat maintenance practices. Hawaii's program identifies statutes and regulations that ensure implementation of the

Hawaii Coastal Nonpoint Program Findings

operation and maintenance management measures. Hawaii's general water pollution control rule and its water pollution control regulations for boat operation and boat harbors prohibit the discharge of any pollutant into surface waters. Also, State-operated marinas require permits for "do-it-yourself" boat cleaning and maintenance in designated areas. The State's submittal notes that pumpout facilities have been installed in several state harbors, ". . . but accessibility to these facilities are variable, as is the public willingness to use them." Maintenance of the pumpout facilities is also a problem. Although the Hawaii Boating Special Fund can be used to maintain sewage pumpout facilities, the submittal does not include any adopted guidelines or criteria for maintenance of sewage facilities. The State submittal on pages III-201 - 204 also identifies recommendations to fully implement the management measures for marinas and recreational boating.

VI. HYDROMODIFICATION

1. Channelization/Channel Modification

FINDINGS: Hawaii's program includes management measures in conformity with the 6217(g) guidance, and enforceable policies and mechanisms to ensure implementation of the management measures, except for management measures in conformity with the 6217(g) guidance for existing modified channels.

RATIONALE: The Hawaii Commission on Water Resources requires Stream Channel Alteration permits for alteration of stream channels. Proposed projects are reviewed for adverse effects on stream waters and stream ecology. However, there is no State-level program to identify opportunities for improvement of water quality and habitat in existing modified channels. Absent a State program, counties are responsible for the maintenance of channels, and may enforce the implementation of operation and maintenance activities by private property owners if the needed work is deemed a private responsibility. The State's Water Code (§174C-71, HRS) addresses instream flow and habitat restoration for channelization and channel modification. Hawaii implements the management measure promoting habitat restoration through the activities of the Hawaii Biodiversity Joint Venture and the Nature Conservancy of Hawaii.

2. Dams

FINDINGS: Hawaii's program includes management measures in conformity with the 6217(g) guidance, and enforceable policies and mechanisms to ensure implementation of the management measures, except for: 1) management measures in conformity with the 6217(g) guidance for erosion and sediment, and chemical and pollutant control; and, 2) enforceable policies and mechanisms to ensure implementation throughout the 6217 management area.

RATIONALE: Hawaii does not have the State-level enforceable policies that address the management measures for erosion and sediment control, and chemical and pollutant control, for

Hawaii Coastal Nonpoint Program Findings

dams. However, Hawaii has county programs that address some elements of the erosion and sediment control management measure (see discussion in Section IV.C. Site Development) and for chemical and pollutant control for dams, (see Section IV.E. Construction Site Chemical Control).

Hawaii implements management measures to protect surface water quality and habitat from the effects of dam operation by requiring permits for any withdrawal, diversion, impoundment, or consumptive use of water in any designated water management areas. The Commission on Water Resources Management may impose restrictions on permits for dam operations to protect water resources from serious harm and to restore them to their previous condition.

3. Streambank and Shoreline Erosion

FINDINGS: Hawaii's program includes management measures in conformity with the 6217(g) guidance, and enforceable policies and mechanisms to ensure implementation of the management measures, except for protecting streambanks and shorelines against erosion due to uses of the adjacent surface waters. The State has proposed an alternative management measure for eroding streambanks and shorelines management that is as effective as the 6217(g) guidance, but does not include a process to identify and solve existing nonpoint source problems caused by streambank or shoreline erosion that are not reviewed under existing permit authorities.

RATIONALE: Hawaii's proposed alternate management measure for eroding shorelines and streambanks is as effective as the measure in the 6217(g) guidance in applying nonpoint source controls to problems associated with eroding shorelines and streambanks. The management measure is partially implemented with permits required for streambank and shoreline stabilization activities. The Hawaii Coastal Zone Management Program discourages the use of structures for stabilization of eroding shorelines/streambanks. Development in designated Special Management Areas along the shoreline is evaluated for its environmental and ecological effects, thus helping to implement management measures to protect streambanks and shorelines from erosion due to uses of the shorelands, and to protect shoreline or streambank features with the potential to reduce nonpoint source pollution. However, the State's program does not describe a process to identify and develop strategies to solve existing nonpoint problems caused by streambank or shoreline erosion that are not reviewed under existing permit authorities. The identification of existing nonpoint problems could be undertaken by using the same process as proposed for the existing development management measure (see page 7).

VII. WETLANDS, RIPARIAN AREAS AND VEGETATED TREATMENT SYSTEMS

FINDING: Hawaii's program includes management measures in conformity with the 6217(g) guidance for restoration of wetlands and riparian areas, vegetated treatment systems, and protecting wetlands and riparian areas within the 6217 management area, except for protecting wetlands and riparian areas from existing development which adversely affects the nonpoint

Hawaii Coastal Nonpoint Program Findings

source abatement functions of such areas and enforceable policies and mechanisms to ensure implementation throughout the 6217 management area.

RATIONALE: Hawaii's Coastal Zone Management Program implements management measures for protection of wetlands and riparian areas by reviewing permit applications for new projects in Special Management Areas (SMAs) and shoreline setback areas. New development in these areas is reviewed for any substantial adverse environmental or ecological effect. The State also requires permits for any alteration of stream channels, and proposed projects are reviewed for effects on stream waters or stream ecology. However, Hawaii's program only applies management measures for wetlands and riparian area protection to new projects within wetlands or within SMAs. The program does not include management measures to address existing upland or upstream development which can adversely affect the nonpoint source abatement functions of wetlands and riparian areas.

Hawaii implements management measures promoting restoration of wetlands and riparian areas through the work of the Hawaii Biodiversity Joint Venture and the Nature Conservancy. In addition, Hawaii has county programs that promote the use of vegetative treatment by including requirements for natural vegetation in laws and regulations for grading and clearing activities. However, the program submission also notes that the State does not implement, on a regular and consistent basis, the management measure promoting the use of vegetated treatment systems and constructed wetlands. NOAA and EPA encourage the State to pursue the recommendations for improvement to the management of wetland and riparian areas as described on pages III-242 - III-244 of the program submission.

VIII. PUBLIC PARTICIPATION

FINDING: Hawaii's program provides opportunities for public participation in the development and implementation of the coastal nonpoint program.

RATIONALE: Hawaii's program submittal describes in Section V.1 and V.2 activities that provide opportunities for and encourage public participation in the coastal nonpoint program. The State established a working group and five focus groups to assist in the development of the agriculture, forestry, urban, marinas, and stream system (hydromodification) portions of the program. The State has also held statewide public informational meetings, given numerous presentations to government officials, industry, and environmental and community organizations, and attended a number of local conferences and workshops to describe the requirements of Section 6217 and to solicit public input regarding the program. The State is developing a nonpoint source pollution outreach advisory committee to establish a long-range communication and outreach plan. This plan will integrate additional public outreach efforts required to facilitate the implementation of the State's coastal nonpoint program. The State has also prepared an extensive response to comments document on Hawaii's coastal nonpoint program.

IX. ADMINISTRATIVE COORDINATION

FINDING: Hawaii's program includes mechanisms to improve coordination among State agencies and State and local officials in implementing the coastal nonpoint program.

RATIONALE: Hawaii's program submittal describes in Part VI existing mechanisms to coordinate State and local efforts to address nonpoint pollution of coastal waters. The administrative coordination section identifies agencies and programs responsible for program implementation and adequately describes their role in implementing the State's 6217 program. There are statutory requirements that agencies' rules, programs, and activities must comply with the Hawaii Coastal Zone Management Program objectives and policies (Chapter 205A, HRS). In addition, the Administrative Procedures Act (Chapter 91, HRS) allows for other State agencies to review and comment on State agency rules under consideration.

X. CRITICAL COASTAL AREAS, ADDITIONAL MANAGEMENT MEASURES AND TECHNICAL ASSISTANCE

FINDING: Hawaii's program does not include a process for the identification of critical coastal areas, or for the development and continuing revision of management measures applicable to critical coastal areas and cases where the 6217 (g) measures are fully implemented but water quality threats or impairments persist. The program does not describe efforts to provide technical assistance to local governments and the public for implementing additional management measures.

RATIONALE: The State of Hawaii had not begun the development of these three programmatic elements at the time of program submission. The State has not outlined in its program a process for identifying critical coastal areas or additional management measures. However, the State submittal has identified and listed all threatened and impaired waters in the State, as well as the major sources of pollutants. The State intends to provide technical assistance relating to additional management measures, as well as relating to 6217(g) measures or comparable alternatives developed by the State. Technical assistance may be provided through ongoing efforts under the Clean Water Act, Section 319 program.

XI. MONITORING

FINDING: Hawaii's program does not include a plan to assess over time the success of the management measures in reducing pollution loads and improving water quality.

RATIONALE: The State of Hawaii is currently in the process of revising its water quality monitoring plan. The plan will include four monitoring categories: core network, recreational bathing waters, watershed protection, and toxic contaminant screening. The overall goal to focus

Hawaii Coastal Nonpoint Program Findings

available resources on the most critical needs is appropriate, but the information presented does not include any details regarding how the revised plan will assess over time whether the management measures are reducing pollution loads and improving water quality.

For example, while the core network is intended to assess status and trends, there is no discussion of how the State will associate water quality trends with management measure implementation. Similarly, there is no clear linkage made between management measures and the recreational bathing waters monitoring despite the statement on page VII-14 that nonpoint sources are primarily responsible for impairment in recreational waters. The toxic contaminants screening program is currently inactive. The Ala Wai Canal watershed monitoring program has potential for Section 6217 since it is intended to identify measurable changes in water quality and assess the relative effectiveness of land management and pollution control practices. However, the management measure tracking and evaluation are not explicitly called for in the plan.

Hawaii is encouraged to continue development of its proposed monitoring program. The State should include in its plan information regarding the number and location of monitoring stations, the types and frequency of water quality data being collected, and the analytic approaches that will be employed in conjunction with existing monitoring efforts to assess the success of management measures in achieving water quality objectives. The State should include some inexpensive tracking of management measure implementation in conjunction with water quality monitoring, as such information is needed to assess the success of management measures in achieving water quality objectives.

XII. CONDITIONS

Based on the findings and the corresponding rationale, the following conditions must be met to receive final program approval. The State, within the timeframes indicated below, will include in its Coastal Nonpoint Pollution Control Program the following management measures in conformity with the 6217 (g) guidance. NOAA, EPA, and the State will annually conduct joint reviews to assess progress towards meeting these conditions and to identify needed technical and programmatic assistance.

Management Measures:

1. Within 3 years, the State will include in its CNPCP management measures in conformity with the 6217(g) guidance for the following categories of activities:

A) Agriculture:

1. erosion and sediment control;
2. nutrient management; and,
3. grazing.

B) Urban:

Hawaii Coastal Nonpoint Program Findings

1. new development;
 2. watershed protection;
 3. existing development;
 4. site development;
 5. construction site erosion and sediment control;
 6. construction site chemical control;
 7. requirements for denitrifying OSDS, where applicable, and a program that ensures inspection of OSDS at a frequency adequate to ascertain system failures;
 8. roads, highways and bridges under DOT jurisdiction (construction site chemical control, runoff systems, and operation and maintenance); and all management measures for roads, highways and bridges not under DOT jurisdiction.
2. Within 5 years, the State will include in its CNPCP management measures in conformity with the 6217(g) guidance for the following categories of activities:
- C) Forestry:
1. preharvest planning;
 2. streamside management;
 3. road construction/reconstruction;
 4. road management;
 5. timber harvesting;
 6. site preparation and forest regeneration management;
 7. fire management;
 8. revegetation of disturbed areas;
 9. forest chemical management; and,
 10. wetlands forest management.
- D) Marinas and Recreational Boating:
- Siting and Design:
1. shoreline stabilization;
 2. storm water runoff;
 3. fuel station design; and,
 4. sewage facilities;
- Operation and Maintenance:
5. maintenance of sewage facilities.
- E) Hydromodification:
1. existing modified channels;
 2. erosion and sediment control of dams;
 3. chemical and pollutant control for dams;

Hawaii Coastal Nonpoint Program Findings

4. protection of stream banks and shorelines against erosion due to used of the adjacent surface waters. The state will also develop a process to identify and solve existing nonpoint source pollution caused by streambank or shoreline erosion that are not reviewed under existing permit authorities.

F) Wetlands:

1. protection of wetlands and riparian areas from existing development which adversely affects the nonpoint source pollution abatement functions of such areas.

Administrative Elements:

3. Within 1 year, the State will include in its CNPCP the following program element:
 - A) Monitoring:
 1. A plan that enables the State to assess over time the extent to which implementation of management measures are reducing pollution loads and improving water quality.
4. Within 5 years, the State will include in its CNPCP the following program elements:
 - B) Critical Coastal Areas, Additional Management Measures and Technical Assistance:
 1. A process for the identification of critical coastal areas and a process for developing and revising management measures to be applied in critical coastal areas and in areas where necessary to attain and maintain water quality standards.
 2. The State will also include in its program a process to provide technical assistance in the implementation of additional management measures.

Enforceable Policies and Mechanisms:

5. Within 3 years, the State will include in its CNPCP enforceable policies and mechanisms to ensure implementation of the following management measures throughout the 6217 management area:
 - A) Requirements for denitrifying OSDS, where applicable, and a process that ensures inspection of OSDS at a frequency adequate to ascertain system failure; and,
 - B) All management measures for local roads, highways, and bridges not under DOT jurisdiction.
6. Within 5 years, the State will include in its CNPCP enforceable policies and mechanisms to ensure implementation of the following management measures throughout the 6217 management area:

Hawaii Coastal Nonpoint Program Findings

- A) Erosion and sediment control, and chemical and pollutant control, for dams; and,
- B) Protection of wetlands and riparian areas from existing development which adversely affects their nonpoint source abatement function.

Strategies and Evaluations of Back-up Authorities:

7. Within 1 year, the State will:

- A) Develop a strategy to implement the management measures for agriculture, forestry and urban - new development, watershed protection, existing development, site development, construction site erosion and sediment control, and construction site chemical control, throughout the 6217 management area. This strategy will include a description and schedule for the specific steps the State will take to ensure implementation of the management measure; describe how existing or new authorities can be used to ensure implementation where voluntary efforts are unsuccessful; and identify measurable results which, if achieved, will demonstrate the State's ability to achieve widespread implementation of the management measure using the described approach.
- B) Develop and apply credible survey tools to demonstrate the ability of the State's approach to achieve widespread implementation of these management measures. The use of credible assessment techniques is necessary in order for NOAA and EPA to evaluate, at the three year period described in the March 16, 1995 guidance issued by NOAA and EPA entitled *Flexibility for State Coastal Nonpoint Programs*, whether the State's approach has been successful or whether new, more specific authorities will be needed.